

**Before the  
Federal Communications Commission  
Washington, D.C. 20554**

In the Matter of	)	
	)	
Amendment of Part 2 of the	)	
Commission's Rules to Allocate	)	
Spectrum Below 3 GHz for Mobile and	)	ET Docket No. 00-258
Fixed Services to Support the	)	
Introduction of New Advanced Wireless	)	
Services, including Third Generation	)	
Wireless Systems	)	
	)	
Amendment of Section 2.106 of the	)	
Commission's Rules to Allocate	)	
Spectrum at 2 GHz for Use By the	)	ET Docket No. 95-18
Mobile-Satellite Service	)	
	)	
The Establishment of Policies and	)	
Service Rules for the Mobile-Satellite	)	IB Docket No. 99-81
Service in the 2 GHz Band	)	
	)	
Petition for Rule Making of the Wireless	)	
Information Networks Forum	)	
Concerning the Unlicensed Personal	)	RM-9498
Communications Service	)	
	)	
Petition for Rule Making of UTStarcom,	)	
Inc., Concerning the Unlicensed	)	RM-10024
Personal Communications Service	)	

To: The Commission

COMMENTS OF TELEPHONE AND DATA SYSTEMS, INC.

Telephone and Data Systems, Inc., on behalf of itself and its subsidiary, U. S. Cellular Corporation,<sup>1</sup> (collectively "TDS"), by its attorneys, submits its comments in

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<sup>1</sup> U.S. Cellular Corporation provides cellular systems serving approximately 17% of the land area and approximately 9% of the population of the United States (approximately 24.1 million people).

response to the Commission's *Memorandum Opinion and Order and Further Notice of Proposed Rulemaking* ("MO&O and FNPRM") released on August 20, 2001 with regard to possible new advanced terrestrial wireless ("3G") services in frequency bands not identified in its original *Notice of Proposed Rulemaking* released last January in this proceeding, including those designated for the Mobile Satellite Service ("MSS"), the Unlicensed Personal Communications Service ("UPCS"), the Amateur Radio Service, and the Multipoint Distribution Service ("MDS").

#### Introduction.

Telephone and Data Systems, Inc. has previously filed comments and reply comments in these proceedings on February 22, 2001 and March 9, 2001, respectively, urging the Commission to take the following essential steps:

(1) Allocate sufficient spectrum to create a vibrant national 3G network. A minimum of 160-180 MHz of new spectrum should be authorized for 3G use, just to meet the spectrum needs of incumbent commercial mobile service providers.

(2) Define 3G markets in small enough areas to permit small, mid-sized, and rural wireless providers to obtain 3G spectrum and offer new services. Specifically, TDS recommends that Basic Trading Areas be used and, in any case, opposes the use of Major Trading Areas as were used for the

A and B Blocks of Broadband PCS and strongly opposes use of Economic Area Groupings chosen for the upcoming upper 700 MHz auction.<sup>2</sup>

(3) Move quickly to allocate 3G spectrum and relocate any incumbent licensed operations which are not compatible with the 3G. TDS believes that the microwave clearance process employed when implementing the PCS service at 1850-1990 MHz would furnish a good model for Commission rules in this proceeding.

(4) Harmonize U.S. 3G frequencies, to the extent possible, with those used by our trading partners. The national interest, rather than the private interest of certain providers, should control the Commission's deliberations.

(5) Allow and encourage wireless providers to provide 3G service within their existing frequency authorizations as well as obtaining new 3G frequencies in the auction process.

In these comments, we discuss the challenges which the Commission faces to find adequate spectrum resources to meet near term needs for 3G uses and the urgent need to reallocate a minimum of 160-180 MHz of additional 3G spectrum for licensing at the earliest possible opportunity. The tragic events on September 11 have provided numerous examples of how the family of wireless mobile services, of

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<sup>2</sup> U.S. Cellular Corporation, filed extensive comments, including a paper prepared by Professor William P. Rogerson, Professor of Economics at Northwestern University, in response to the Commission's Notice of Proposed Rulemaking (FCC 01-91) released March 28, 2001, In Re Reallocation and Service Rules for the 698-746 MHz Spectrum band (Television Channels 52-59) in GN Docket No. 01-74 describing the need for selection of geographic service area sizes smaller than national or regional to promote, through market based approaches, the competitive development of advanced technologies in all areas of the country.

which 3G is the next generation, serve vital, irreplaceable and increasingly universal communications needs touching the lives of many users. Prompt and comprehensive Commission action to allocate a minimum of 160-180 MHz of additional spectrum for the expansion of existing terrestrial wireless networks will serve the public interest.

### Discussion

Terrestrial wireless communications represent the most dynamic segment of the telecommunications market and one of the greatest industrial successes in our nation's history. Wireless communications have changed the way we work and the way we live. We can maintain that level of success only if we develop a clear framework for making new spectrum available for the 3G wireless services, which include high-speed data/Internet transmissions, multimedia uses and videoconferencing.

The United States is lagging behind other countries in the implementation of 3G services. Many countries have already licensed spectrum for 3G services in accordance with actions taken at WARC-92 and other countries are in the process of doing so. However, in this country spectrum identified at WARC-92 for 3G use is being used for other purposes, including PCS, the digital 2<sup>nd</sup> generation mobile service. Therefore, the United States needs to identify and allocate substantial additional spectrum to meet the demand over the next 10-20 years. The Council of Economic Advisers predicts that the introduction of wireless 3G services will add between \$53-111 billion in annual consumer benefits and warns that delay in

allocating spectrum for these services will significantly harm consumers, the wireless industry, the U.S. Treasury and the U.S. economy. No other prospective service that is receiving or seeking an allocation of spectrum can make a similar claim.

There is a consensus of opinion that a minimum of 160-180 MHz of spectrum, in addition to existing cellular and PCS spectrum, will be required to meet the demand for 3G services through 2010. Clearly, any such allocation must be unencumbered -- i.e., there must be adequate sharing rules or incumbent users must be cleared from the band quickly.

After the release of the MO&O and FNPRM, the terrorist attacks on the World Trade Center and the Pentagon have caused an ongoing review of government policy and according to a recent agreement between the National Telecommunications and Information Administration ("NTIA") and the Department of Defense ("DoD"), the DoD will retain the spectrum at 1770-1850 MHz, with 1710-1770 MHz and 2110-2170 MHz being allocated to 3G. If this is going to be the case, TDS requests that additional alternative spectrum be identified promptly and that the Commission be prepared to allocate to 3G all of the spectrum resources identified in the MO&O and FNPRM.

The Commission's recent decision<sup>3</sup> not to relocate the existing licensees or otherwise modify the licenses of ITFS and MMDS licensees in the 2500-2690 MHz

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<sup>3</sup> Amendment of Part 2 of the Commission's Rules to Allocate Spectrum Below 3 GHz for Mobile and Fixed Services to Support the Introduction of New Advanced Wireless Services, including Third Generation Wireless Systems, *First Report and Order and Memorandum Opinion and Order* (FCC 01-256) Released: September 24, 2001 in ET Docket No. 00-258.

band also significantly reduces the spectrum options which were previously before the Commission in this proceeding. This leaves little or no room for the Commission to pick and choose among the spectrum options presented in its MO&O and FNPRM if it is going to allocate adequate spectrum to meet 3G needs.

With that background in mind, TDS comments as follows on the Commission's specific allocation proposals:

A. 1910-1930 and 2390-2400 MHz.

TDS submits that all of the 1910-1930 MHz and 2390-2400 MHz bands should be reallocated to wireless 3G. As noted in the MO&O and FNPRM, there is little utilization of the 1910-1930 MHz band. If existing UPCS operations cannot share the band on a secondary basis, then they should be relocated to alternative spectrum. Likewise, the amateur radio spectrum at 2390-2400 MHz should be reallocated for 3G services. The uncontroverted economic benefits from a robust 3G spectrum allocation and auction will far outweigh the cost of relocating incumbent users on these bands.

B. 1990-2025 MHz and 2165-2200 MHz.

The 1990-2025 MHz and 2165-2200 MHz bands have been allocated and licensed for Mobile Satellite Services on a non-auction basis. The Commission proposes that this non-auctioned spectrum could be made available for 3G wireless to the extent that MSS licensees fail to meet their construction requirements.

Petitions for reconsideration of the Commission's MSS decision were filed, and the Commission should take that opportunity to reallocate the spectrum for

auction. Auctions ensure that spectrum will be devoted to its best use. As the MO&O and FNPRM states, even some of the MSS licensees contend that the proposed MSS service will not be viable unless the MSS rules are modified to allow them to engage in "ancillary" terrestrial service. MO&O and FNPRM at paragraph 19. In contrast to the Council of Economic Advisers analysis supporting an allocation for a wireless 3G auction, the Commission's MSS allocation is not supported by any meaningful economic analysis -- and now some of the beneficiaries of this non-auctioned spectrum concede that the proposed MSS service is not viable. TDS submits that at a minimum reallocating 14 MHz of the MSS spectrum as proposed by the Commission to terrestrial 3G services subject to auction selection procedures would result in the best use of this spectrum.<sup>4</sup> Waiting for MSS spectrum to be abandoned is a formula for delay due to legal challenges and appeals.

Having stated its intention to proceed with the MSS allocation, the Commission sought comment on plans to reallocate 10-14 MHz of MSS spectrum for advanced wireless services prior to any abandonment of spectrum by MSS licensees. TDS supports reallocation of as much MSS spectrum as possible at the earliest opportunity. This includes both the 14 MHz available now and any abandoned spectrum available hereafter. Moreover, any MSS licensees that proceed to

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<sup>4</sup> TDS is filing concurrently Comments in response to the Commission's companion proceeding, In re Flexibility for Delivery of Communications by Mobile Satellite Service Providers in the 2 GHz Band, the L-Band, and the 1.6/2.4 GHz Band/Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile Satellite Service, *Notice of Proposed Rulemaking* (FCC 01-225), released: August 17, 2001 in IB Docket No. 01-185/ ET Docket No. 95-18, with respect to these same matters and the related need for prompt relicensing of MSS spectrum abandoned for failure to meet construction benchmarks, which comments are hereby adopted by reference.

construct MSS systems should be required to use contiguous bands of spectrum, so that any abandoned spectrum will consist of contiguous bands of spectrum (e.g., if 1990-2005 MHz and 2165-2180 MHz are used by MSS operators, the resulting available spectrum would be 2005-2025 MHz and 2180-2200 MHz). TDS also supports policies that enable and encourage MSS operators to consolidate and relinquish spectrum rather than construct systems which make inefficient use of spectrum.

C. 2150-2160 MHz.

The 2110-2180 MHz band is one of the most promising bands for wireless 3G services. Prior to the MO&O and FNPRM, the Commission had not included the 2150-2160 MHz band presently allocated to MDS in its wireless 3G spectrum proposals. TDS strongly supports including 2150-2160 MHz as part of an overall allocation plan that includes 2110-2180 MHz. This reallocation also should be adopted to support the staged plan for 3G allocations recently developed by NTIA, DoD and the Commission. The MDS industry will have ample spectrum in the 2500-2690 MHz band. TDS urges that the Commission reallocate 2150-2160 MHz as part of a broader 3G spectrum allocation and not merely add a mobile service allocation in the 2150-2160 MHz band.

Conclusion

TDS has previously requested that the Commission move expeditiously to designate adequate spectrum for terrestrial 3G uses. The Commission needs to consider immediately the adoption of service area sizes for the licensing of such spectrum



which permit small, mid-sized and rural providers realistic opportunities to acquire the additional spectrum resources. The Commission should give these proceedings the highest possible priority and promptly make allocations of additional 3G spectrum.

Respectfully submitted,

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